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May 25, 1999

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MAY 25 1999

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

94-102

BY HAND

Magalie Roman Salas, Esquire
Secretary
Federal Communications Commission
The Portals
445 12th Street, SW, Room TWB204
Washington, D.C. 20554

Attn: Wireless Telecommunications Bureau

**Re: Request of West Coast PCS, LLC for Waiver of
Section 20.18(c) of the Commission's Rules**

Dear Ms. Salas:

Enclosed, on behalf of West Coast PCS, LLC, and pursuant to Section 1.3 of the Commission's rules and the Wireless Telecommunications Bureau's November 13, 1998 Order in CC Docket No. 94-102, I am enclosing an original and four copies of a Request for Waiver of Section 20.18(c) of the Commission's Rules, specifically that portion of the rule that requires the transmission on digital wireless systems of 9-1-1 calls made from TTY devices.

If there are any questions regarding this matter, please contact me.

Very truly yours



Paul J. Feldman
Counsel for
West Coast PCS, LLC

PJF:jpg

Enclosures

cc: Mr. Marty Liebman, FCC (w/encl.) Room 3-B153)
Mr. Greg Gierczak (w/encl.)
George Petrutsas, Esq. (w/o encl.)

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Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

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MAY 25 1999
FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

In the Matter of)
)
Revision of the Commission's Rules) CC Docket No. 94-102
To Ensure Compatibility with)
Enhanced 911 Emergency)
Calling Systems)

To: Chief, Wireless Telecommunications Bureau

**Request for Waiver of
Section 20.18(c) of the Commission's Rules**

West Coast PCS, LLC. d/b/a RCS Wireless ("WCPCS"), pursuant to Section 1.3 of the Commission's Rules, hereby requests a limited waiver of Section 20.18(c) of the Commission's Rules, specifically that portion of the Rule that requires the transmission on digital wireless systems of 9-1-1 calls made from TTY devices. This waiver is sought pursuant to the procedures set forth in the Bureau's November 13, 1998 Order in the above-captioned proceeding.¹

¹ In the Matter of Revision of the Commission's Rules To Ensure Compatibility with Enhanced 911 Emergency Calling Systems, CC Docket No. 94-102, Order, RM-8143 (rel. November 13, 1998) ("Order").

I. Introduction

WCPCS is a small carrier, headquartered in Roseville, California.² WCPCS will commence service to the public approximately on or after June 11, 1999, providing PCS service in the following BTAs, all located in California: Modesto, Sacramento, Stockton, and Yuba City.³ WCPCS is mindful of the requirements of Section 20.18 of the Commission's Rules, and looks forward to serving the hearing-disabled community. However, WCPCS is filing this petition in order to prevent being in violation of the FCC's Rules when it turns up service, because it will not be able to comply on that date with the requirement of Section 20.18(c) mandating that TTY users be able to access 911 over digital wireless phones.

On November 13, 1998, the Wireless Telecommunications Bureau released an *Order* extending through December 31, 1998, the suspension of enforcement of Section 20.18(c) of the Commission's Rules regarding the transmission of 911 calls made from TTY devices using digital wireless systems. The Bureau recognized the difficulties the industry was experiencing in achieving TTY compatibility with digital systems, and in paragraph 11 of the *Order*, established specific procedures under which wireless carriers subject to the requirements of Section 20.18(c) may petition the

² The equity of West Coast PCS, LLC is currently held by Roseville PCS, Inc. and Foresthill Telephone Company. Roseville PCS, Inc. holds 89 percent of the equity in West Coast PCS, LLC, and is the managing member of the LLC. Foresthill Telephone holds the remaining 11 percent equity. Roseville PCS, Inc. is a wholly-owned subsidiary of Roseville Communications Company.

³ The call signs of the authorizations used for these operations are KNLG 245, KNLH 726, KNLH 727, and KNLH 728, respectively.

Commission for a waiver of those requirements after December 31st.⁴ The showing set forth below is made in accordance with those procedures.

II. Petition for Waiver

In paragraph 11 of the *Order*, carriers are required to make a three-part showing, as set forth below.

A. Steps WPCS is Taking or Intends to Take to Provide Users of TTY Devices with the Capability to Operate Such Devices in Conjunction with Digital Wireless Phones.

WPCS's system is being constructed with a Lucent switch using CDMA technology. WPCS is committed to providing service to users of TTY devices, including transmission of 9-1-1 calls, to the extent that it is technically feasible to do so. The first step that WPCS has taken is that it recently made inquiries to Lucent as to the compatibility of CDMA switches with transmission of TTY-originated calls. According to Lucent, CDMA technology is not currently capable of complying with the

⁴ The *Order* stated that the Commission would no longer suspend enforcement of Section 20.18(c) as of January 1, 1999, but rather would require carriers who could not comply with the requirements of Section 20.18(c) at that time, to file individual waivers by December 4, 1998. WPCS did not file a Petition for Waiver on December 4th because it was not operational on December 4th (and thus was not subject to the requirements of Section 20.18(c)), accordingly knew that it was not going to be operational on January 1, 1999, and thus was not subject to the requirement to seek a waiver of the Section 20.18 requirements at that time. See *Order* at para. 10 ("... we are also establishing the following procedures and providing the following guidance to carriers who would seek waiver of Section 20.18(c) as of January 1, 1999(emphasis added)" and para. 12 ("In the case of any carrier seeking a waiver that would become effective on January 1, 1999, such carrier shall file a petition for waiver with the Commission on or before December 4, 1998 (emphasis added)". Indeed, on December 4th, WPCS did not even know when it was going to commence provision of service. However, unlike the situation on December 4th, WPCS is now in a position to reasonably anticipate when it will commence operations and thus when it will become subject to the requirements of Section 20.18.

Commission's requirements. However, as the Bureau recently recognized, at the most recent Wireless TTY Forum, Lucent presented a potential solution to the TTY/digital problem.⁵ Nevertheless, Lucent notes that while its proposed solution would be incorporated into the switches that it manufactures, any successful digital TTY transmission would be a result of the interaction between the signal transmitted from the Lucent switch, with handsets provided by other manufacturers. See April 19, 1999 Letter of Albert Jordan (Director, Lucent CDMA Product Management), attached hereto as Exhibit 1. While Lucent notes that tests between its new switching technology and handsets are likely to occur in the second half of 1999, it is unable to predict when carriers will be able to comply with the digital TTY requirement. *Id.*

In sum, Lucent has stated that it may take a significant period of time to develop a finished product that can accommodate digital TTY use.⁶ WPCPS will continue to make inquiries to its suppliers on progress in producing equipment that will allow WPCPS to comply with the digital TTY requirement. When such switching equipment and handsets becomes commercially available, WPCPS will provide digital TTY 9-1-1 service. Until that time, WPCPS will keep the Commission informed about its progress, pursuant to Bureau requirements. As the equipment manufacturers provide more definite information about the timing and nature of their technical solutions, WPCPS will provide that information to the Commission.

⁵ See, "Wireless Telecommunications Bureau Reports on Status of Pending TTY Waiver Petitions" DA 99-895, released May 13, 1999.

⁶ See *Order* at ¶ 5, footnote 4.

B. When WCPCS Intends to Make Digital TTY Capability Available.

As was noted above, while WCPCS's switch supplier has estimated that testing of its technical solution will occur this year, it cannot at this time provide a firm deadline or timetable for when such equipment will be made available. Accordingly, because WCPCS relies on its suppliers for equipment, WCPCS cannot at this time provide a firm deadline or timetable for when digital TTY capability will be made available to its subscribers. When such equipment is made available, WCPCS will test and implement digital TTY service for subscribers. Until that time, WCPCS will continue to monitor the progress made by its suppliers, and will regularly report back to the Commission, pursuant to the requirements of the *Order* or other Bureau Orders, on its progress towards implementation.

C. Steps WCPCS Will Take to Address The "Consumer Concerns" Referenced in the Bureau's September 30th Order.

WCPCS is mindful of the list, attached to the Bureau's September 30th Order in this proceeding, setting forth the functional characteristics that TTY consumers would like to see made available in any digital TTY solution. While WCPCS understands the consumer desire for these features and functions, its ability to address these concerns is largely dependent on its suppliers' ability to provide such features and functions. WCPCS will continue to work with suppliers to encourage addressing as many of the consumer concerns as possible, where technically and economically feasible. Once equipment is made available, WCPCS will be in a better position to address the consumer concerns.

D. A Grant of This Waiver Request is Justified.

Pursuant to Section 24.819 of the Commission's Rules, a request for waiver of the Rules may be granted upon a showing of either:

- 1) that the underlying purpose of the Rule would not be served or would be frustrated by application in this particular case; or
- 2) that in view of unique or unusual factual circumstances in this particular case, application of the Rule would be inequitable, unduly burdensome, or contrary to the public interest. Applicants must show the lack of a reasonable alternative.

In this particular case, because the required technology currently does not exist (as was shown above), WPCPS has no reasonable alternative but to apply for this waiver, and application of the digital TTY requirement to WPCPS would be inequitable and unduly burdensome. Indeed, to the best of Petitioner's knowledge, no carrier is currently capable of delivering TTY calls over digital systems with the accuracy expected and required by the hearing disabled community (as measured in character error rates after transmission). See Joint Comments of the Cellular Telecommunications Industry Association and Personal Communications Industry Association, filed October 30, 1998, at Appendix A, Item 2. ("... no CMRS carrier offering digital wireless was able to meet the October 1, 1998 deadline [for compliance with Section 20.18(c)]. ... It is technically impossible for CMRS carriers to comply with the Commission's rules governing TTY access to 9-1-1 over digital wireless systems until the appropriate equipment is commercially available."). The Commission has previously recognized that carriers rely on their suppliers for equipment to comply with

regulations, and granted waivers in circumstances similar to this. See, e.g., Roosevelt County Rural Telephone Cooperative, 13 FCC Rcd 22 at paras. 28-42 (1997).

A grant of a waiver in this case is also justified because enforcement of the digital TTY requirement when the equipment required for compliance does not exist could cause carriers to slow down the roll-out of digital wireless service, thus frustrating the Commission's goal of promoting a competitive wireless market for advanced services.

III. Conclusion

In sum, it will be technically impossible for WCPCS to comply with the digital TTY requirement immediately upon commencement of service, but if granted this waiver, WCPCS will keep the FCC informed of the progress it has made with its equipment manufacturers toward making digital 9-1-1/TTY a reality. For the foregoing reasons, WCPCS submits that this limited waiver requested is in the public interest.

WHEREFORE, West Coast PCS, LLC requests a waiver of that portion of Section 20.18(c) of the Commission's Rules that requires the transmission on digital wireless systems of 9-1-1 calls made from TTY devices.

Respectfully submitted,

WEST COAST PCS, LLC.

By: 

Paul J. Feldman
Its Attorney

May 25, 1999

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EXHIBIT 1

Lucent Technologies
Bell Labs Innovations



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April 19, 1999

Subject: Lucent Technologies TTY/TDD Status update

This memo provides a status update on progress that has been made with the Text Telephone Device (TTY) solution for digital wireless systems. Lucent Technologies continues to actively participated in industry and consumer forums focusing on the compatibility of TTY signals and digital wireless systems and has developed promising strategies to solve this difficult problem.

Lucent's in-band TTY/TDD solution consists of some interoperable modifications of the CDMA vocoders. Essentially, the solution consists of detecting and decoding the Baudot TTY/TDD signals at the input to the speech encoder at the transmit side, and then using the bits normally used for transmitting pitch information to transmit decoded characters redundantly to the speech decoder at the receiver. The decoder at the receiver, directed by some special logic, then regenerates the character locally. Simulation results demonstrate that the this solution achieves effectively 0% character error rate (CER) for CDMA channels with as much as 5% FER. The predicted CER for this channel without the algorithm would be in excess of 50%.

This solution has been presented to the CTIA TTY Forum, the CDG, and TIA TR45.5.1.1. It has been well received by all of these forums, and the TIA has granted provisional standard document identifiers (PNs) for an EVRC and a CDMA-13 version of this solution. Lucent has distributed a C-language simulation of the solution incorporated into the TIA's golden EVRC simulation to the TIA for independent member verification and testing.

The next step towards moving the solution ahead is developing partnerships with handset vendors for conducting over the air trials and for the production of handsets. Dialogue with handset vendors has been initiated and to date a partnership has not been established. A number of CDMA carriers have indicated that they would be willing to host a trial in their systems. Such a trial would likely occur in 2H'99.

I plan to keep you informed of progress towards the TTY/TDD solution through our quarterly update on status. Information of general availability and pricing for the network half of the solution will be available in the next two quarters. Because the total solution also involves adoption by handset manufacturers, we cannot speculate when carriers will be able to comply with the mandate.

If you have any questions or concerns, please call Christopher Fernandez on 630 224 7873.

Thank you,

Albert Jordan
Director, CDMA Product Management
Wireless AMPS/PCS
Lucent Technologies

DECLARATION OF BRIAN GAVIN

I, Brian Gavin, am the Director of Operations and Engineering of West Coast PCS, LLC. I have read the "Request for Waiver of Section 20.18(c) of the Commission's Rules" to which this Declaration is attached. The facts stated therein are true and correct to the best of my knowledge and belief.

I declare under penalty of perjury that the foregoing is true and correct.

May 24, 1999


Brian Gavin